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10/553,116	08/08/2006	Jens Husner	71932	1731
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EXAMINER				
SALONE, BAYAN				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/553,116

Applicant(s)

HUSNER ET AL.

Examiner

BAYAN SALONE

Art Unit

3726

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-8,10-12 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3,5-8,10-12 and 14-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2005 and 07 June 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsman's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "a front side of the edge of the internal sheet" in Lines 2 and 3 of the claim. It is unclear as to which side of the edge of the internal sheet the applicant regards as the "*front side*".

Claim 23 recites the limitation "wherein said edge flange portion of said internal sheet and said edge flange portion of said external sheet are moveable with respect to one with said gap". It is unclear as to why the applicant is claiming to have the flange portions of the internal and external sheets moveable with respect to "one". Further, it is unclear as to which or what "one" the applicant is referring. With the broadest reasonable interpretation, the examiner believes the applicant is intending to claim that the edge flange portion of the internal sheet and the edge flange portion of the external sheet are moveable with respect to one another.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 6, 8, 10-12, 14 and 16-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Zimmer (US Patent No. 6,109,682).
3. Regarding Claim 1, Zimmer discloses a method for producing a door or hatch of a motor vehicle comprising: providing an internal sheet (3) and at least one external sheet (1) with said sheets being produced separately from each other; and bending the external sheet (1) inwardly by up to 90° (see Zimmer Figure 2) at sides visible from outside in the edge area; pushing pertaining edge area (4) of the internal sheet (3) against the bend (2) of the external sheet (1) to minimize a gap (19) defined between edge areas of said internal sheet (3) and said bend of said external sheet (1); welding the internal sheet (3) and the external sheet (1) together by a laser beam (21) directed into the gap (19) between the edge areas (4) of the internal sheet (3) and the bend (2) of the external sheet (1); laying the edges of the external sheet (1) and internal sheet (3) on each other in parallel to the door plane at all invisible sides in the edge area of the attached part lying opposite to the visible area(s) (Note: the examiner construes all four sides of the sheets are identically formed (see Figure 2). The area where the inner sheet (3) and outer sheet (1) are abutted between supports (14, 15) shows wherein the sheets are placed parallel to one another before being welded together. As can also be noted from Figure 2, the sides of the inner sheet (3) are now hidden, once they are abutted against the interior of the outer sheet (1)); and laser welding in an overlap joint

of the overlapping parallel edges of said external sheet and said internal sheet (Col. 1, Lines 10-16 and Col. 3, Lines 6-33, Fig. 2).

4. Regarding Claim 2, Zimmer discloses a method according to claim 1, wherein a visible edge area of said external sheet (1) is inwardly bent around the inner sheet (3) using a bordering tool so that the inner sheet is bordered by the outer sheet. The method of Zimmer results in the production of a door or hatch in which all sides thereof are identically formed. Therefore, using said method the visible edge area of the external sheet (1) would inherently be inwardly bent at a sill side and/or lock side of the motor vehicle door (Col. 1, Lines 10-16).

5. Regarding Claim 3, Zimmer discloses a method according to claim 1 wherein the invisible edge areas (2) of the door external sheet (1) are connected with the edge areas (4) of the door internal sheet (3) in the overlap joint by laser welding (Col. 1 Lines 10-16 and Lines 23-24). The method of Zimmer results in the production of a door or hatch in which all sides thereof are identically formed. Therefore, as previously stated, using the disclosed method the invisible edge areas of the external sheet (1) of the motor vehicle door would inherently be connected to the edge areas of the internal sheet (3) at a hinge side and/or window side.

6. Regarding Claim 5, Zimmer discloses a method according to claim 1 wherein in the visible area where the external sheet (1) is inwardly bent, the internal sheet (3), too, is wholly or partly bent inwardly or outwardly in an edge area (Col. 3, Lines 6-13, Figs. 2-4).

7. Regarding Claim 6, Zimmer discloses a method according to Claim 5, wherein the bend of the external sheet (1) forms an acute angle to the bend of the internal sheet (3) (Col. 3, Lines 11-13, Fig. 4).

8. Regarding Claim 8, Zimmer discloses a method according to claim 1 wherein the edge area of the internal sheet (3) is arranged in parallel to the external sheet (2) and that a side of the edge of the internal sheet (3) is so beveled that said side of said edge of said internal sheet forms an acute angle to the bend of the external sheet (1). (Note, as can be seen in Figure 2, the end regions (2, 4) of the external and internal sheets are mated together in a parallel configuration. The bend area shown below the weld are (5) shows wherein an acute angle is formed between the sheets and flows into the bend).

9. Regarding Claim 10, Zimmer discloses a method for producing a motor vehicle door or hatch, the method comprising the steps of: forming an internal sheet (3); forming an external sheet (1) produced separately from the internal sheet (the external and internal sheets are brought together and formed to produce the vehicle door or hatch); forming an edge area by bending the external sheet (1) inwardly at a side by up to 90° (see Zimmer Figure 2) to form a bend and a bent portion, pushing an edge area (4) of the internal sheet (3) against the bent portion in toward the bend of the external sheet (2) to minimize a gap (19) between the bent portion and the edge area (4) of the internal sheet (3) and welding the internal sheet and the external sheet together by a laser beam (21) directed into the gap (19) between the edge area (4) of the internal sheet (3) and the bent portion adjacent to the bend of the external sheet (1); and forming the edge area by laying an edge portion (2) of the external sheet and an edge portion (4) of

the internal sheet on each other in parallel to the door plane and laser-welding the portions together to form an overlap joint.

Zimmer further discloses wherein the edge of the outer sheet (1) is bent around the inner sheet (3) so the inner sheet (3) is bordered by the outer sheet (Col. 1, Lines 10-16). (Note: the examiner construes all four sides of the sheets are identically formed. As is shown in Figure 2, the area where the inner sheet (3) and outer sheet (1) are abutted between supports (14, 15) shows wherein the sheets are placed parallel to one another where overlapping flanged portions are formed before being welded together. Also, the edge flange portion of the inner sheet (3) will inherently move into or *"along"* the edge flange portion of the external sheet (1) when the sheets are abutted together at the bend of the external sheet (1) to be welded. Furthermore, the sides of the inner sheet (3) are hidden, once they are abutted against the interior of the outer sheet (1), thus the edge of the outer sheet (1) is visible to a user of the motor vehicle door, while the edges of the inner sheet (3) are hidden from a user of the motor vehicle door, as all of the edges of the inner sheet (3) are bordered by the outer sheet (1)).

10. Regarding Claim 11, Zimmer discloses a method of claim 10 wherein an edge area of said external sheet (1) is inwardly bent around the inner sheet (3) using a bordering tool so that the inner sheet is bordered by the outer sheet. As shown in Figure 2, it is inherent that the visible edge area of the external sheet (1) is inwardly bent at a sill side and/or lock side of the motor vehicle door (Col. 1, Lines 10-16).

11. Regarding Claim 12, Zimmer discloses a method according to claim 11, wherein the invisible edge areas (2) of the door external sheet (1) are connected with the edge

areas (4) of the door internal sheet (3) in the overlap joint by laser welding (Col. 1 Lines 10-16 and Lines 23-24). The method of Zimmer results in the production of a door or hatch in which all sides thereof are identically formed. Therefore, as previously stated, using the disclosed method the invisible edge areas of the external sheet (1) of the motor vehicle door would inherently be connected to the edge areas of the internal sheet (3) at a hinge side and/or window side (see Figure 2).

12. Regarding Claim 14, Zimmer discloses a method according to claim 10, wherein the bend (2) of the external sheet (1) forms an acute angle to the bend of the internal sheet (3) (Col. 3, Lines 11-13, Fig. 4).

13. Regarding Claim 16, Zimmer discloses a method according to claim 10, wherein the edge area of the internal sheet (3) is provided by bending an end in a direction away from the external sheet (Col. 1, Lines 49-52, Fig. 3).

14. Regarding Claims 17 and 18, Zimmer discloses a method according to claim 10, wherein the edge area of the internal sheet (3) is provided by bending an end (4) in a direction toward the external sheet (1); wherein the edge area (4) of the internal sheet (3) is the end face of the internal sheet (3) directed toward an inner surface of the bent portion of the external sheet (1) (Col. 3, Lines 43-47, Fig. 7).

15. Regarding Claim 19, Zimmer discloses a method that results in the production of a motor vehicle door or hatch in which all sides thereof are identically formed. The motor vehicle door comprising: an external sheet (1) comprising an edge area wherein a side of said edge area of said external sheet (1) is bent by an angle up to 90° to form a bend and a bent portion (See Zimmer Figure 2); and an internal sheet (3) comprising

an edge area (4); said internal sheet (3) being produced separately from said external sheet (1) (the external sheet and the internal sheet are brought together and formed to produce the vehicle door or hatch), wherein an edge area (4) of said internal sheet (1) is pushed toward the bend of the external sheet (1) (the internal sheet (3) is inherently "pushed" against the external sheet (1) when they are abutted against one another to be welded together) to minimize a gap (19) between the bent portion and the edge area (4) of the internal sheet (3), the internal sheet (3) and the external sheet (1) being welded together by a laser beam (21) directed into the gap (19) between the edge area (4) of the internal sheet (3) and the bent portion adjacent to the bend of the external sheet (1), wherein the edge area (2) of the external sheet (1) is in contact with an edge (4) of the internal sheet (3), said edge portion (2) of said external sheet (1) and said edge portion (4) of said internal sheet (3) being on each other in parallel to the door plane to form overlapping portions, wherein the overlapping portions are laser-welded and together to form an overlap joint.

Zimmer further discloses wherein the edge of the outer sheet (1) is bent around the inner sheet (3) so the inner sheet (3) is bordered by the outer sheet (Col. 1, Lines 10-16). (Note: as previously stated, the examiner construes all four sides of the sheets are identically formed. As seen in Figure 2, the area where the inner sheet (3) and outer sheet (1) are abutted between supports (14, 15) shows wherein the sheets are placed parallel to one another where overlapping "*flanged*" portions are formed before being welded together. Also, the sides of the inner sheet (3) are hidden, once they are abutted against the interior of the outer sheet (1), thus the edge of the outer sheet (1) is visible

to a user of the motor vehicle door, while the edges of the inner sheet (3) are hidden from a user of the motor vehicle door, as all of the edges of the inner sheet (3) are bordered by the outer sheet (1)).

16. Regarding Claim 20, Zimmer discloses a motor vehicle door or hatch according to claim 19, wherein the edge area of the external sheet (1) is inwardly bent (Col.1 Lines 10-16).

17. Regarding Claim 21, Zimmer discloses a motor vehicle door or hatch according to claim 19, wherein the edge area of the internal sheet (3) is provided by bending an end in a direction away from the external sheet (1) or in a direction toward the external sheet (1) (Col. 3, Lines 6-14 and Lines 43-49, Figs. 3 and 7).

18. Regarding Claim 22, Zimmer discloses a method according to claim 1, wherein said internal sheet (3) and said external sheet (1) are movable with respect to one another prior to said welding step (the internal sheet (3) is "movably" placed in parallel with the external sheet (1) when the two are abutted against one another to be welded together).

19. Regarding Claim 23, Zimmer discloses a method that results in the production of a motor vehicle door or hatch according to claim 19, wherein said edge portion (4) of said internal sheet (3) and said edge portion of said external sheet (1) are movable with respect to one another with said gap in an un-welded state (the internal sheet (3) is "movably" placed in parallel with the external sheet (1) with respect to a formed gap (19) when the two are abutted against one another prior to being welded together).

Zimmer further discloses wherein the edge of the outer sheet (1) is bent around the inner sheet (3) so the inner sheet (3) is bordered by the outer sheet (Col. 1, Lines 10-16). (Note: as previously stated, the examiner construes all four sides of the sheets are identically formed. As seen in Figure 2, the area where the inner sheet (3) and outer sheet (1) are abutted between supports (14, 15) shows wherein the sheets are placed parallel to one another where overlapping "*flanged*" portions are formed before being welded together.

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmer (US Patent No. 6,109,682), in view of Klaus et al. (EP Patent Document 0200997).

22. Regarding Claims 7 and 15, Zimmer discloses a method according to claims 1 and 10 wherein the edge areas (4) of the internal sheet (3) are inwardly or outwardly bent at an angle of $\leq 90^\circ$ or $\geq 90^\circ$ to substantially enhance the moment of resistance (Col. 1, Lines 49-52 and Col. 3, Lines 34-52, Figs. 5-8). Zimmer does not explicitly disclose bending the edge areas of the internal sheet inwardly or outwardly at an angle up to 180° .

23. Klaus et al. discloses a method of laser beam welding two thin metal sheets (1, 2) together. The two metal sheets being an internal sheet (1) and an external sheet (2) are formed by bending each of the edges (3, 4) of the metal sheets to an angle of 180°, to form flanged areas (3, 4) (Abstract of the disclosure). It would have been obvious to one of ordinary skill in the art at the time of invention to form the edge areas of Zimmer at a bent angle of up to 180° as disclosed by Klaus et al., for the benefit of substantially enhancing the moment of resistance.

Response to Arguments

24. Applicant's arguments filed June 7, 2010 have been fully considered but they are not persuasive.

25. *Applicant argues Zimmer fails to teach and fails to suggest the combination of welding an internal sheet and an external sheet together by a laser beam directed into a gap between the edge areas of the internal sheet and a bend of the external sheet wherein a hidden or not visible edge area is formed by laser-welding or laser-soldering the edge flange portion of the external sheet that lays on the edge flange portion of the internal sheet in parallel to a component plane.*

The examiner respectfully disagrees. As pointed out in the first Office Action and reiterated in the above 35 USC § 102(b) rejection, Zimmer clearly discloses welding the internal sheet (3) and the external sheet (1) together using a laser beam (21) directed into a gap (19) between edge area (4) of the internal sheet and edge area (2) of the

external sheet (1). Zimmer does not explicitly disclose a visible, hidden or not visible edge or forming end areas of the metal sheets having overlapping flange portions.

Zimmer does however disclose wherein the edge of the outer sheet (1) is bent around the inner sheet (3) so the inner sheet (3) is bordered by the outer sheet (Col. 1, Lines 10-16). (Note: as previously stated the examiner construes all four sides of the sheets are identically formed. As is shown in Figure 2, the area where the inner sheet (3) and outer sheet (1) are abutted between supports (14, 15) shows wherein the sheets are placed parallel to one another where overlapping flanged portions are formed before being welded together. Furthermore, the sides of the inner sheet (3) are hidden, once they are abutted against the interior of the outer sheet (1), thus the edge of the outer sheet (1) is visible to a user of the motor vehicle door, while the edges of the inner sheet (3) are hidden from a user of the motor vehicle door, as all of the edges of the inner sheet (3) are bordered by the outer sheet (1)). Said hidden edges of the internal sheet (3) are formed when the laser beam (21) is directed between the edge areas of the internal and external sheets.

26. *Applicant argues the vertical bend of Zimmer disadvantageously does not allow the gap to be minimized by shifting the inner sheet as featured in the present invention.*

27. The examiner respectfully disagrees. As pointed out in the first Office Action and reiterated in the above 35 USC § 102(b) rejection, once the internal sheet (3) is abutted (movably placed in parallel) against the external sheet (1) a gap formed between the sheets is minimized as the sheets are moved relative to one another. It is unclear to the examiner how the applicant can verify the gap of the present invention is more so

minimized in comparison to the minimal gap of Zimmer that is formed when the sheets are moved relative to one another and abutted together. It is the examiner's interpretation that a most minimal gap is formed when the sheets are brought into abutment to be welded together.

28. *Applicant argues there is no teaching or suggestion in Column 1, lines 10-16 or Col. 3, lines 6-33 of Zimmer for welding two sheets in a non-visible area as claimed.*

29. The Applicant respectfully disagrees. It appears that Applicant has overlooked the disclosure of Col. 1, lines 10-15 and Col. 3, lines 6-33 of the Zimmer reference. Lines 10-16 of Zimmer specifically disclose the outer sheet is bent around the inner sheet, using a bordering tool or more so that the edge of the inner sheet is bordered by the outer sheet. The examiner construes all the sides of the door of Zimmer are formed in the same manner. As evidenced by the disclosure of Zimmer, non-visible sides of the internal sheet (3) are formed once the internal sheet is abutted against the external sheet (1). Col. 3, Lines 28-33 of Zimmer specifically disclose wherein a laser beam is directed into a gap (19) between the edge areas of the two sheets to laser weld the sheets together. Since the non-visible sides of the internal sheet (3) are formed once said internal sheet (3) is abutted against the external sheet (1) inherently these non-visible sides are welded together as the laser beam (21) is directed into the area where said sides are formed to weld said sheets together.

30. *Applicant argues Zimmer and Klaus et al. provide no suggestion or teaching for the combination of different joining processes on the visible and non-visible sides of a component.*

31. The examiner respectfully disagrees. As pointed out in the first Office Action and reiterated in the above 35 USC § 103(a) rejection, Zimmer clearly discloses welding the sheets together at visible and non-visible sides of the internal and external sheets. Klaus further discloses welding two sheets together using a method similar to that of Zimmer; the two metal sheets being an internal sheet (1) and an external sheet (2), formed by bending each of the edges (3, 4) of the metal sheets to an angle of 180°, to form flanged areas (3, 4) (Abstract of the disclosure). Clearly the combination of Zimmer and Klaus disclose a teaching of a different joining process on the visible and non-visible sides of a component as the Klaus reference discloses a different configuration in which the sheets are welded together.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BAYAN SALONE whose telephone number is (571)270-7739. The examiner can normally be reached on M-Th, 7:30 AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571)-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BAYAN SALONE/
Examiner, Art Unit 3726

/DAVID P. BRYANT/
Supervisory Patent Examiner, Art Unit 3726